

In the Claims:

Claims are amended as follows:

1. (currently amended) A multiple input multiple-output (MIMO) radio communications device comprising
 - (i) a plurality of antenna elements; and
 - (ii) a combiner arranged to adaptively combine said antenna elements such that two or more diverse directional antenna beams are provided to receive two or more inputs, ~~where each input is a MIMO channel~~; said combiner being arranged to couple said inputs to two or more receive chains;
 - (iii) a processor arranged to operate on outputs of the two or more ~~multiple~~ receive chains to produce two or more received MIMO channels ~~an output signal~~, andwherein there are more antenna elements than receive chains.
2. (canceled)
3. (previously presented) A radio communications device as claimed in claim 1 in the form of a user terminal.
4. (original) A radio communications device as claimed in claim 1 wherein said antenna beams are diverse as a result of any of polarisation diversity, angle diversity and space diversity.
5. (original) A radio communications device as claimed in claim 1 wherein said combiner comprises at least one beamformer.
6. (original) A radio communications device as claimed in claim 1 wherein at least some of said antenna elements are provided as a phased array.

7. (original) A radio communications device as claimed in claim 1 wherein a pair of antenna beams are provided with substantially orthogonal polarisations and at substantially similar directions.

8. (previously presented) A radio communications device as claimed in claim 7 wherein a second pair of antenna beams is provided also with substantially orthogonal polarisations to one another and at substantially similar directions but being at a different direction from said pair of antenna beams.

9. (original) A radio communications device as claimed in claim 1 wherein said combiner is arranged to electronically steer the directional antenna beams.

10. (original) A communications network comprising a plurality of radio communications devices as claimed in claim 1.

11. (currently amended) A method of operating a multiple input multiple-output (MIMO) radio communications device comprising the steps of:

- (i) receiving radio signals at a plurality of antenna elements by;
- (ii) using a combiner to adaptively combine the antenna elements such that two or more diverse directional antenna beams are provided ~~they are operable in at least one direction~~ to receive two or more diverse inputs, ~~where each input is a MIMO channel~~, and coupling said inputs to two or more receive chains; processing outputs of the two or more ~~multiple~~ receive chains to produce two or more received MIMO channels ~~an output signal~~, and wherein there are more antenna elements than receive chains.

12. (previously presented) A method as claimed in claim 11 wherein said received signals are space-time coded.

13. (currently amended) A method of operating a multiple input multiple-output (MIMO) radio communications device comprising the steps of:

- (i) transmitting radio signals from a plurality of antenna elements by;
 - (ii) processing signals on two or more transmit chains to produce two or more processed signals, where each processed signal is a MIMO channel; and
 - (iii) using a combiner to adaptively combine the antenna elements such that two or more diverse directional antenna beams are provided for transmitting ~~they are operable in at least one direction to transmit the two or more processed signals as diverse outputs;~~ and
- wherein there are more antenna elements than transmit chains.

14. (previously presented) A method of operating a radio communications device as claimed in claim 13 wherein said radio signals are space-time coded.